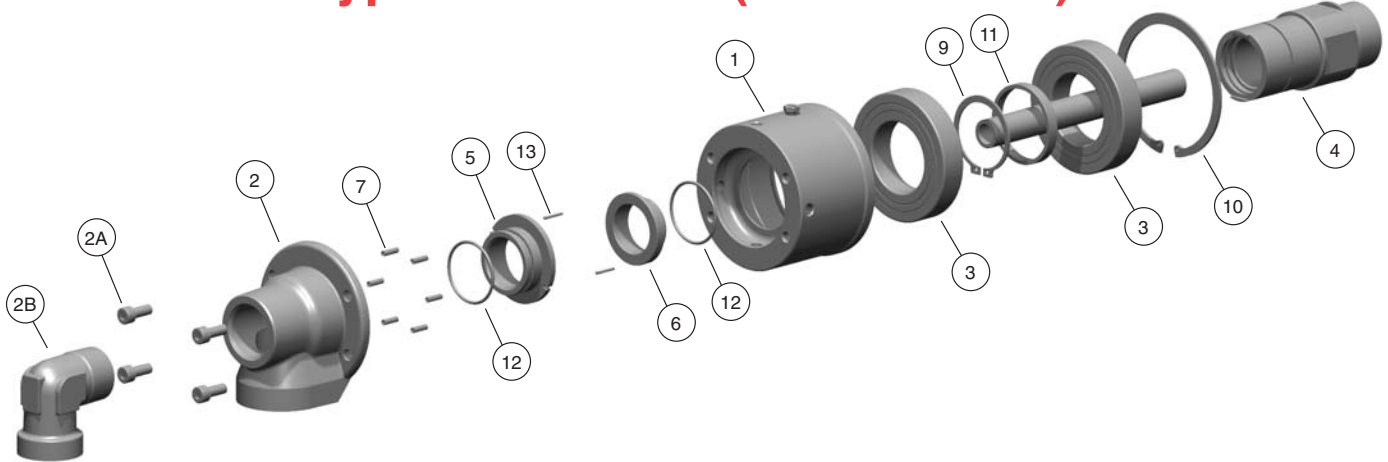


Disassembly and Repair of Type RX Unions (3/8" – 1 1/2")



Follow your company's safety procedures whenever working on Kadant Johnson products. Read all of the instructions before proceeding with the installation or repair.

Please refer to the Kadant Johnson assembly drawings for part identification. Assembly drawings are available on request from Kadant Johnson.

Lubricate all fasteners with anti-seize compound. Tighten all fasteners in a star pattern. Torque specifications are listed on the product assembly drawing and are available from Kadant Johnson.

Release residual pressure in the system. Close the inlet and outlet valve. Allow the union to cool sufficiently and then disconnect the inlet and outlet piping from the union.

SEAL REPAIR KITS:

1.5" Size	RK-4150-SR	-1
1.25" Size	RK-4125-SR	-1
1" Size	RK-4100-SR	-1
0.75" Size	RK-4075-SR	-1
0.5" Size	RK-4050-SR	-1
0.38" Size	RK-4038-SR	-1

CONSISTING OF:

Description	Item #	RK-4150RX-SR	RK-4125RX-SR	RK-4100RX-SR
		Qty	Qty	Qty
Seal Ring	5	1	1	1
Counterseat	6	1	1	1
Spring	7	6	6	4
O-Ring	12	2	2	2
O-Ring Lube	–	1	1	1

Description	Item #	RK-4075RX-SR	RK-4050RX-SR	RK-4038RX-SR
		Qty	Qty	Qty
Seal Ring	5	1	1	1
Counterseat	6	1	1	1
Spring	7	4	4	4
O-Ring	12	2	2	2
O-Ring Lube	–	1	1	1

NOTE: Do not use anti-seize or petroleum-based products on o-rings. Only lubricate the o-rings with the lubricant supplied with the Kadant Johnson repair kit. Applications up to 350°F (177°C), use Parker silicone o-ring lubricant. Applications over 350°F (177°C), use the same grease that is used in the bearings of the union (Krytox GPL 227). Use latex gloves when handling o-ring lubricant.

CARBON SEAL REPLACEMENT – ON OR OFF MACHINE

STEP 1.

Loosen and remove socket head cap screws (2A) and set aside. Remove head (2).

STEP 2.

Remove seal ring (5), o-ring (12), and springs (7) from head (2) and discard.

STEP 3.

Remove counterseat insert (6) and o-ring (12) from nipple (4) and discard.

STEP 4.

Inspect horizontal pipe bushing in elbow (2B) if equipped (Dual Flow). Replace elbow if worn. Inspect bearings. If they need replacing, follow "Bearing Replacement" instructions.

STEP 5.

Carefully clean the o-ring end of the nipple (4) and the bore of the head (2) where the seal ring (5) sits. Do not scratch surfaces. This may be done using a Scotch Brite pad.

STEP 6.

Apply a small amount of o-ring lube to both sides of a new o-ring (12) and fit it over the end of the new seal ring (5) o-ring groove. Insert new springs (7) into the spring holes in the head (2).

STEP 7.

Place a clean soft cloth over the sealing face of the seal ring (5). Align the notches in the seal ring with the pins (13) in the head (2) and gently press the seal ring in to the bore of the head.

STEP 8.

Apply a small amount of o-ring lube to both side of a new o-ring (12) for the counterseat (6) and fit it into the o-ring groove in the end of the nipple (4). Align the flats on the OD of the new counterseat (6) with raised ends of the nipple. Gently press the counterseat into the nipple.

STEP 9.

Ensure that the seal faces are clean. Clean the faces of the counterseat (6) and seal ring (5) using a lint free cloth and acetone.

STEP 10.

Carefully place the head (2) containing the seal ring (5) back onto the body (1). Secure head to body using socket head cap screws (2A). Seal package replacement is complete.

BEARING REPLACEMENT

Bearing Repair Kits:

1.5" Size	RK-4150RX-BK	-1
1.25" Size	RK-4125RX-BK	-1
1" Size	RK-4100RX-BK	-1
0.75" Size	RK-4075RX-BK	-1
0.5" Size	RK-4050RX-BK	-1
0.38" Size	RK-4038RX-BK	-1

NOTE: In addition to new bearings, the bearing repair kit also includes the seal repair kit components.

If bearing replacement is required, follow steps listed below.

To begin, follow Steps 1 through 3 under "Carbon Seal Replacement"

STEP 1.

Remove body (1) and bearing assembly (3) from roll. Remove retaining ring (10) from body and keep for use again.

STEP 2.

The union bearings are a slip fit into the body of the union and onto the OD of the nipple. With the retaining ring (10) removed, the nipple (4) with bearings (3) should slide out of the body. If the nipple and bearings do not slide out freely, light pressure can be applied to the end of the nipple while holding the body in a press. In some cases, the outward bearing may remain in the body with the nipple removed and can be dislodged by tapping it out with a rod through the tapped holes on the opposite end of the body.

STEP 4.

With outward bearing (3) removed, remove retaining ring (9) from nipple (4) and set aside for use later. Slide the bearing spacer (11) and inward bearing (3) off the nipple. Clean and dry the nipple and bearing spacer for reuse.

STEP 5.

In the standard bearing kit the bearings are pre-greased. For the -1 version, grease will need to be added. Fill the cavity between each ball with the appropriate grease: SHC PM temp. up to 300°F (149°C) and Krytox GPL 227 temp. above 300°F (149°C).

STEP 6.

Slide the first new bearing (3) onto the nipple (4) until it is seated against the shoulder of the nipple. For bearings with one shield, the first bearing should be installed with the shield down. If the union has a flanged nipple, the retaining ring (10) should be placed over the end of the nipple before installing the bearings.

STEP 7.

Slide the bearing spacer (11) onto the nipple (4) to rest against the first bearing (3).

STEP 8.

Install the retaining ring (9) onto the nipple (4).

STEP 9.

Slide the second new bearing (3) onto the nipple (4) to rest against the retaining ring (9). If a bearing with just one shield is used (-1 version), the open side should be facing down. When the assembly is complete, the open sides of the single shielded bearing should be resting against the bearing spacer (11) and the snap ring (9).

STEP 10.

Place body over bearing (3)/nipple (4) assembly and slide into place. If the body (1) does not slide freely over the bearings, remove and inspect for burrs, etc. Minimal force should be applied to the body to slide it over the bearings, to prevent any damage to the bearings.

STEP 11.

While holding assemblies together, turn over onto a flat surface and install retaining ring (10).

STEP 12.

Add grease through the grease fitting. Contact Kadant Johnson for grease specifications and quantity.

STEP 13.

Follow Steps 5 through 10 under "Carbon Seal Replacement" to complete repairs.

Reinstall the union onto the roll. The Kadant Johnson union is now ready to be placed back in service.

Please refer to Kadant Johnson drawing number A37640 for torque specifications.

Dimensions are for reference only and subject to change. Certified drawings are available on request.

The Kadant Johnson Warranty

Kadant Johnson products are built to a high standard of quality. Performance is what you desire: that is what we provide. Kadant Johnson products are warranted against defects in materials and workmanship for a period of one year after date of shipment. It is expressly understood and agreed that the limit of Kadant Johnson's liability shall, at Kadant Johnson's sole option, be the repair or resupply of a like quantity of non-defective product.

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